National Initiatives and Programs

Who is doing what and where do I go for information?

USGCRP

The U.S. Global Change Research Program (USGCRP) is a Federal program that coordinates and integrates global change research across 13 government agencies to ensure that it most effectively and efficiently serves the Nation and the world.

USGCRP was mandated by Congress in the Global Change Research Act of 1990, and has since made the world's largest scientific investment in the areas of climate science and global change research.

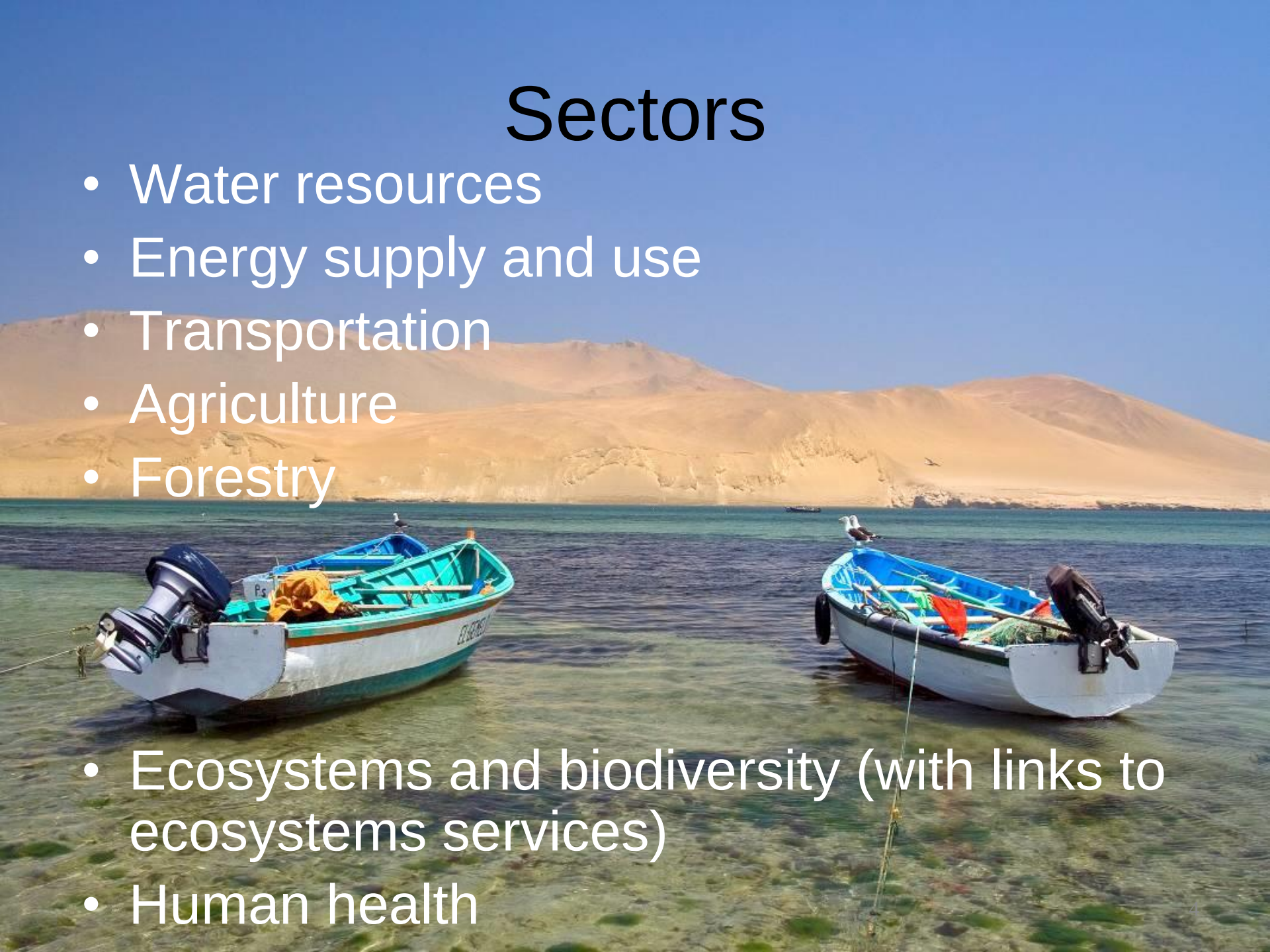
The National Climate Assessment

Section 106 of GCRA: Scientific Assessment

- On a periodic basis (**not less frequently than every 4 years**), the Council, through the Committee, shall prepare and submit to the President and the Congress an assessment which –
- **integrates, evaluates, and interprets the findings of the Program** and **discusses the scientific uncertainties** associated with such findings;
- **analyzes the effects of global change** on the natural environment, agriculture, energy production and use, land and water resources, transportation, human health and welfare, human social systems, and biological diversity; and
- **analyzes current trends in global change, both human-induced and natural**, and projects major trends for the subsequent 25 to 100 years.

Sectors

- Water resources
- Energy supply and use
- Transportation
- Agriculture
- Forestry



- Ecosystems and biodiversity (with links to ecosystems services)
- Human health

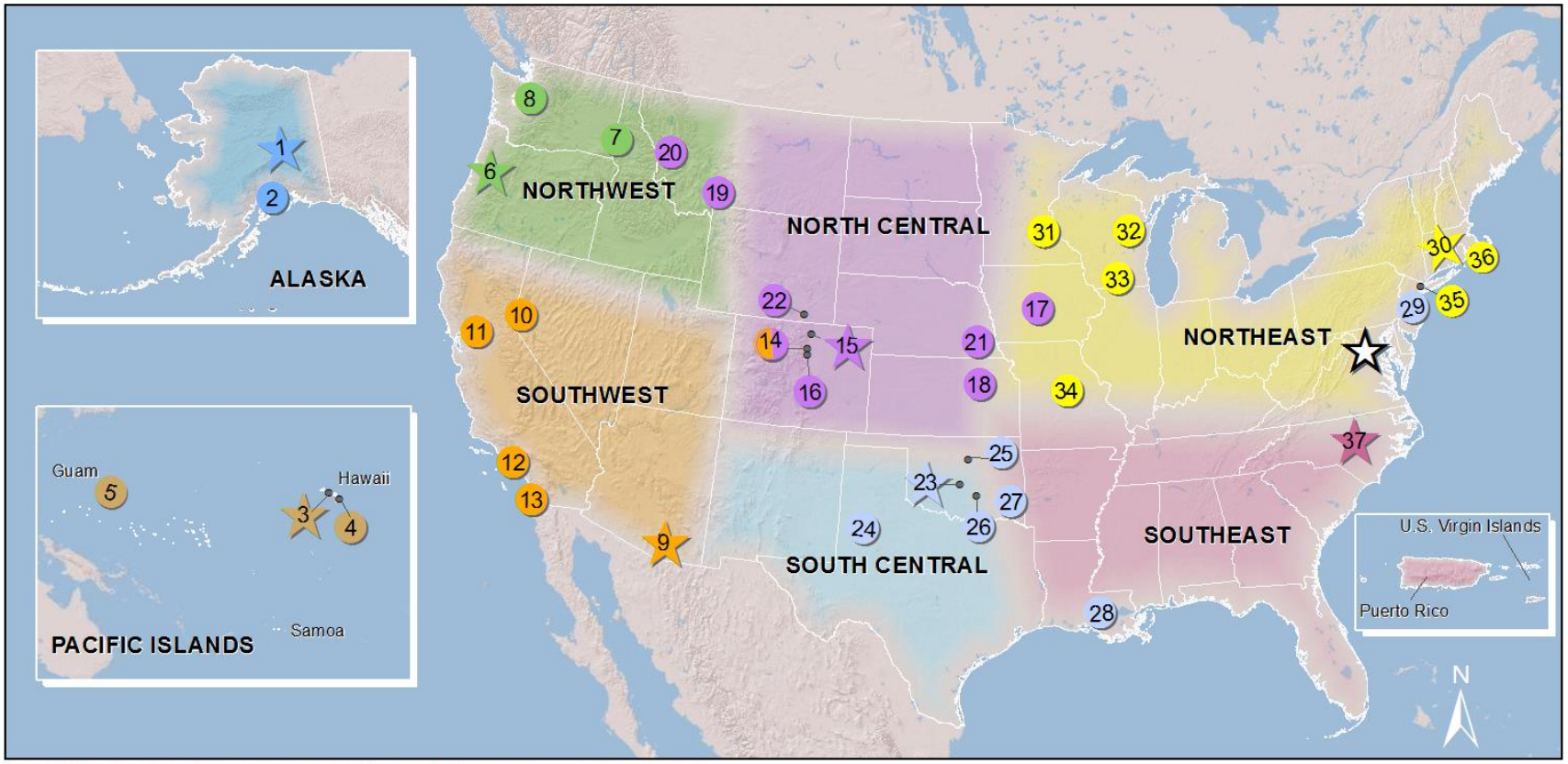
DOI

- A Climate Change Response Council — Coordinates response to the impacts of climate change within and among DOI bureaus. It will also work to improve the sharing and communication of climate- change impact science.

- Eight DOI Regional Climate Science Centers — Serving Alaska, the Northeast, the Southeast, the Southwest, the Midwest, the West, Northwest, and Pacific regions these centers will synthesize existing climate-change-impact data and management strategies, help resource managers put them into action on the ground, and engage the public through education initiatives.

DOI

- CSCs are regional entities under NCCWSC. Working in partnership with resource managers and scientists at national, regional, and landscape levels, the NCCWSC will:
  - Forecast fish and wildlife population and habitat changes in response to climate change.
  - Assess the vulnerability and risk of species and habitats to climate change.
  - Link models of physical climate change (such as temperature and precipitation) with models that predict ecological, habitat, and population responses.
  - Develop standardized approaches to monitoring and help link existing monitoring efforts to climate and ecological or biological response models.



Base from ESRI, 2009, Albers Equal Area Conic Projection, North American Datum of 1983

EXPLANATION

★ National Climate Change and Wildlife Science Center

1 CSC Lead Institutions

2 CSC Institutions

Alaska CSC
1. University of Alaska - Fairbanks
2. University of Alaska - Anchorage

Pacific Islands CSC
3. University of Hawaii at Manoa
4. University of Hawaii at Hilo
5. University of Guam

Northwest CSC
6. Oregon State University
7. University of Idaho
8. University of Washington

Southwest CSC
9. University of Arizona
10. Desert Research Institute (Nevada)
11. University of California - Davis
12. University of California - Los Angeles
13. Scripps Institute of Oceanography
14. University of Colorado

North Central CSC
14. University of Colorado
15. Colorado State University
16. Colorado School of Mines
17. Iowa State University
18. Kansas State University
19. Montana State University
20. University of Montana
21. University of Nebraska - Lincoln
22. University of Wyoming

South Central CSC
23. University of Oklahoma
24. Texas Tech University
25. Oklahoma State University
26. Chickasaw Nation
27. Choctaw Nation of Oklahoma
28. Louisiana State University
29. NOAA Geophysical Fluid Dynamics Laboratory

Northeast CSC
30. University of Massachusetts Amherst
31. University of Minnesota
32. College of Menominee Nation
33. University of Wisconsin - Madison
34. University of Missouri Columbia
35. Columbia University
36. Marine Biological Laboratory

Southeast CSC
37. North Carolina State University

Landscape Conservation Cooperatives

What are they?

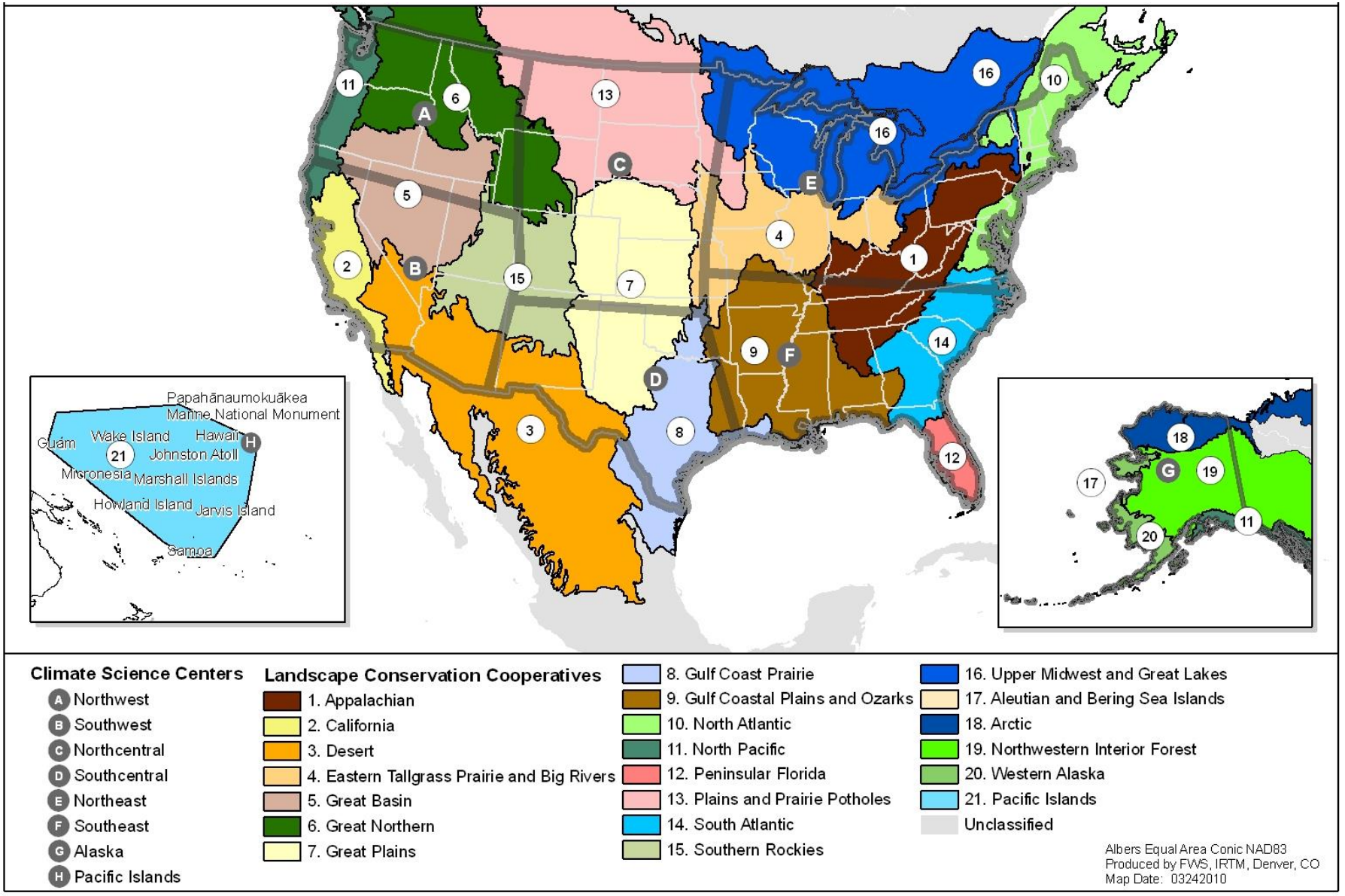
Applied conservation science partnerships. Partners include federal and state agencies, Tribes, conservation organizations, and universities within a geographically defined area

Fundamental units of planning and adaptive science that inform conservation actions on the ground

A national and international network of land, water, wildlife and cultural resource managers and interested public and private organizations

Landscape Conservation Cooperatives

- Engage Interior and other and federal agencies, local and state partners, and the public to craft practical, landscape-level strategies for managing climate-change impacts within the eight regions. They will focus on impacts such as the effects of climate change on wildlife migration patterns, wildfire risk, drought, or invasive species that typically extend beyond the borders of any single National Wildlife Refuge, Bureau of Land Management unit, or national park.


Papahānaumokuākea
Marine National Monument
Guam
Wake Island
Hawaii
Johnston Atoll
Micronesia
Marshall Islands
Howland Island
Jarvis Island
Samoa
Climate Science Centers
A Northwest
B Southwest
C Northcentral
D Southcentral
E Northeast
F Southeast
G Alaska
H Pacific Islands
Landscape Conservation Cooperatives
1. Appalachian
2. California
3. Desert
4. Eastern Tallgrass Prairie and Big Rivers
5. Great Basin
6. Great Northern
7. Great Plains
8. Gulf Coast Prairie
9. Gulf Coastal Plains and Ozarks
10. North Atlantic
11. North Pacific
12. Peninsular Florida
13. Plains and Prairie Potholes
14. South Atlantic
15. Southern Rockies
16. Upper Midwest and Great Lakes
17. Aleutian and Bering Sea Islands
18. Arctic
19. Northwestern Interior Forest
20. Western Alaska
21. Pacific Islands
Unclassified
Albers Equal Area Conic NAD83
Produced by FWS, IRTM, Denver, CO
Map Date: 03242010

USGS

- Land Change Science (LCS)
- National Climate Change and Wildlife Science Center (NCCWSC)
- Carbon Sequestration
- Land Remote Sensing (LRS)
- Research and Development Program (R&D)
- Earth Resources Observation and Science Center (EROS)

National Oceanic and Atmospheric Administration

- A primary provider of climate science, data, tools, and information used by stakeholders and citizens in decision-making contexts.— including global climate observation and monitoring networks; world-renowned scientists; and state-of-the-art climate models.
- NOAA is working with partners and the public to build a climate-smart nation that is resilient to climate and weather extremes, and long-term changes. Drawing upon NOAA's foundation in science, our objectives are to:
  - reduce vulnerability to extreme climate and weather events;
  - prepare for drought and long-term water resource challenges;
  - protect and preserve coasts and coastal infrastructure;
  - identify and manage risks to marine ecosystems and the services they provide; and
  - mitigate and adapt to climate impacts.

EPA

- Collecting Emissions Data
  - provides the United States' official estimate of total national-level greenhouse gas emissions; tracked annual U.S. greenhouse gas emissions since 1990.
  - reducing ghg emissions, promoting a clean energy economy through partnerships and common-sense regulatory initiatives.
  - Developing Common-sense Regulatory Initiatives to reduce GHG emissions and increase efficiency. For example, EPA's vehicle greenhouse gas rules, will save consumers $1.7 trillion at the pump by 2025, and eliminate six billion metric tons of GHG pollution.
- Partnering With the Private Sector
- Evaluating Policy Options, Costs and Benefits
- Advancing the Science - ORD
- Partnering Internationally
- Partnering With States, Localities, and Tribes
- Helping Communities Adapt

USDA

- The Climate Change Program Office (CCPO) coordinates USDA's responses to climate change, focusing on implications of climate change on agriculture, forests, grazing lands, and rural communities. CCPO's responsibilities include:
  - Analysis, planning, research coordination, and the development of climate change response strategies;
  - Providing liaison with other Federal agencies;
  - Informing the Department of scientific developments and policy issues relating to the effects of climate change on agriculture and forestry, and recommending responsive courses of action; and
  - Ensuring that recognition of the potential for climate change is fully integrated into USDA's research, planning, and decision-making processes.

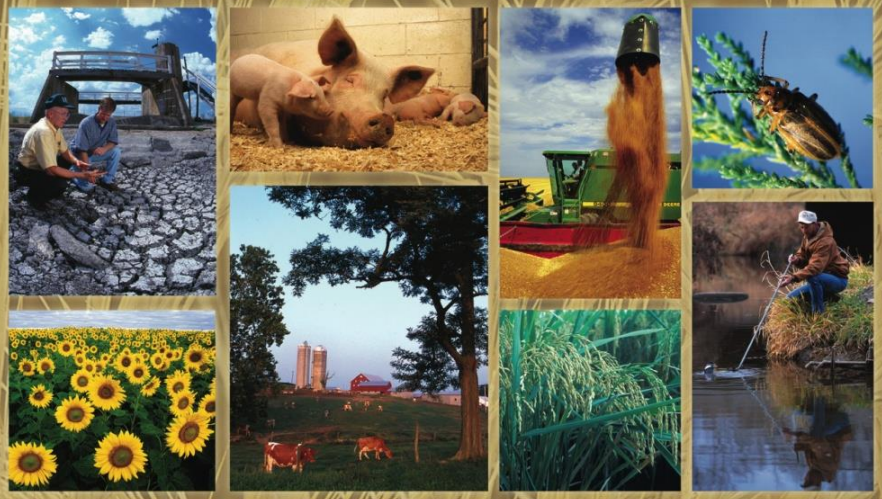
United States
Department
of Agriculture

Agricultural
Research Service

Climate Change
Program Office

Technical Bulletin 1935

Climate Change and Agriculture in the United States: Effects and Adaptation



USDA

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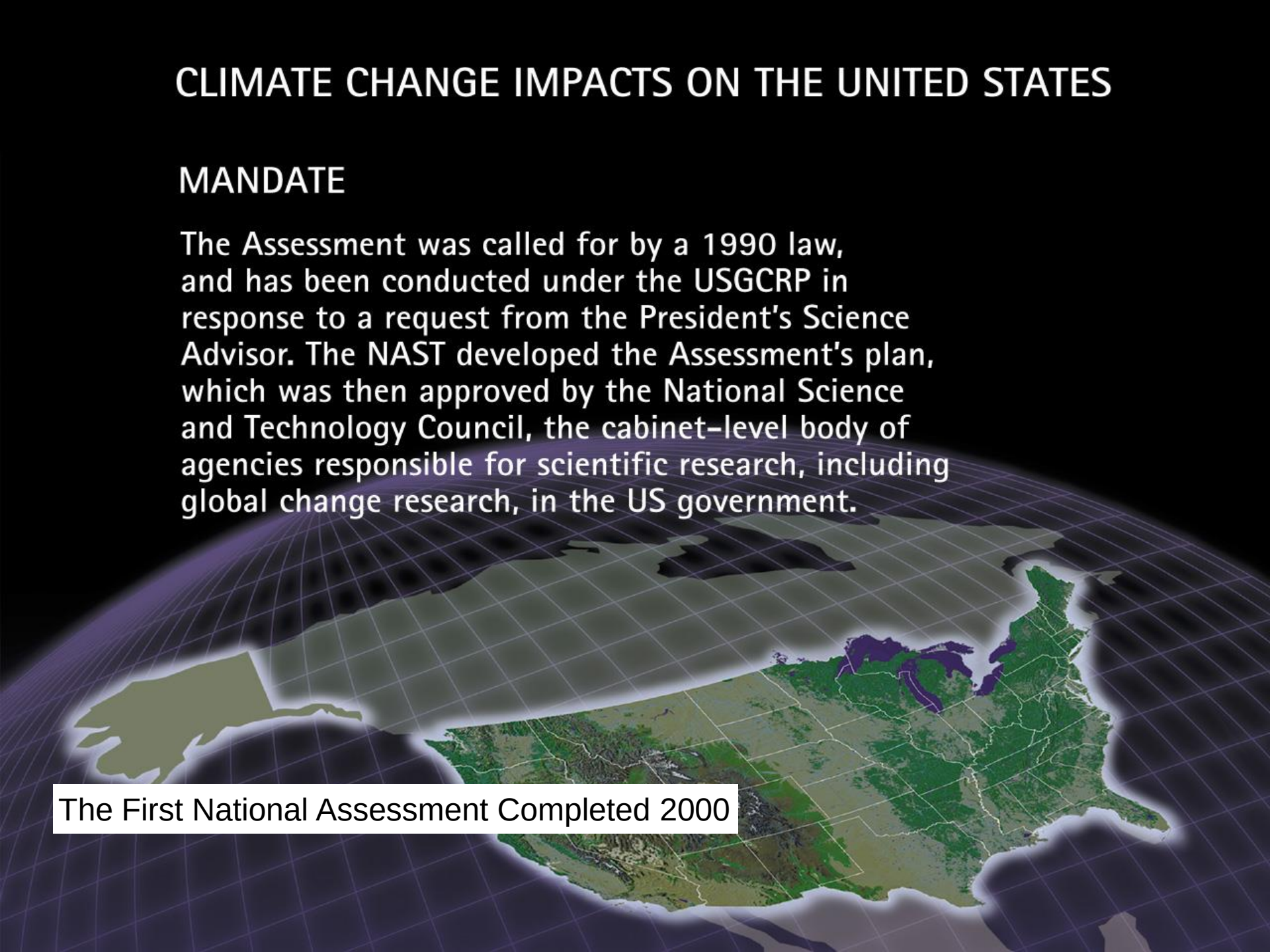
USDA
Climate Change Program Office

NCAR
NATIONAL CENTER FOR ATMOSPHERIC RESEARCH

CLIMATE CHANGE IMPACTS ON THE UNITED STATES

MANDATE

The Assessment was called for by a 1990 law, and has been conducted under the USGCRP in response to a request from the President's Science Advisor. The NAST developed the Assessment's plan, which was then approved by the National Science and Technology Council, the cabinet-level body of agencies responsible for scientific research, including global change research, in the US government.



The First National Assessment Completed 2000